

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/042243 A1

(51) International Patent Classification⁷:
B29C 33/76, 33/50 // B29L 9:00, 22:00

B32B 3/06,

(74) Agent: TANSINI, Elio, Fabrizio; c/o Bugnion S.p.A.,
Viale Lancetti, 17, I-20158 Milano (IT).

(21) International Application Number:
PCT/IT2003/000707

(22) International Filing Date: 31 October 2003 (31.10.2003)

(25) Filing Language: Italian

(26) Publication Language: English

(71) Applicant (for all designated States except US): PIRELLI
PNEUMATICI S.P.A. [IT/IT]; Viale Sarca, 222, I-20126
Milano (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LO PRESTI, Gae-
tano [IT/IT]; c/o Pirelli Pneumatici S.p.A., Viale Sarca,
222, I-20126 Milano (IT). NOTO, Rodolfo [IT/IT]; c/o
Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milano
(IT). DE GESE, Ignazio [IT/IT]; c/o Pirelli Pneumatici
S.p.A., Viale Sarca, 222, I-20126 Milano (IT). POZZATI,
Giovanni [IT/IT]; c/o Pirelli Pneumatici, Viale Sarca 222,
I-20126 Milano (IT). LOPREVITE, Massimo [IT/IT]; c/o
Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milano
(IT).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

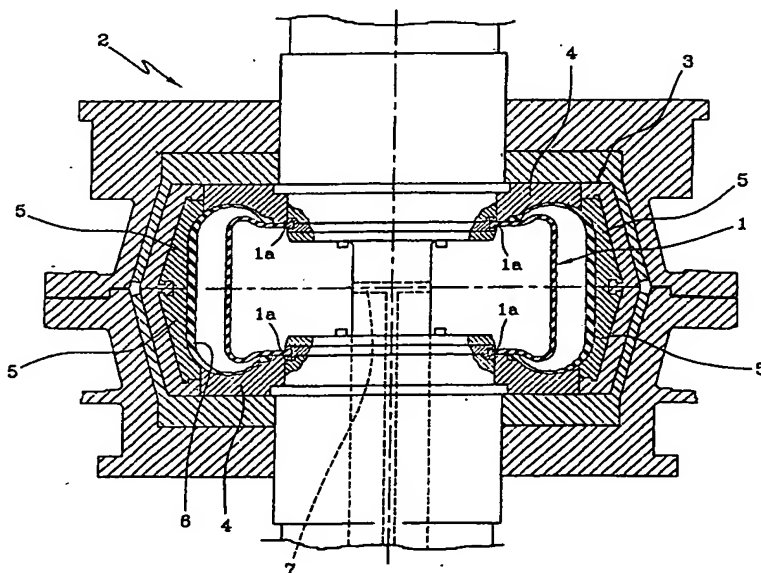
(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: AN EXPANDABLE BLADDER FOR TYRE-CURING APPARATUSES, A MANUFACTURING METHOD THEREOF, AND A PROCESS FOR MANUFACTURING TYRES FOR VEHICLE WHEELS



(57) Abstract: An expandable bladder (1) comprises at least one first layer (8) of butyl material and one second layer (9) of silicone material, radially external to the first layer. The first and second layers have an undulated interface profile (10) defining mechanical-engagement elements (10a) between the first (8) and second (9) elastomer materials. Also disclosed is a process for manufacturing said bladder as well as a tyre moulding and vulcanising apparatus (2) incorporating the bladder.

BEST AVAILABLE COPY